

Figure 2

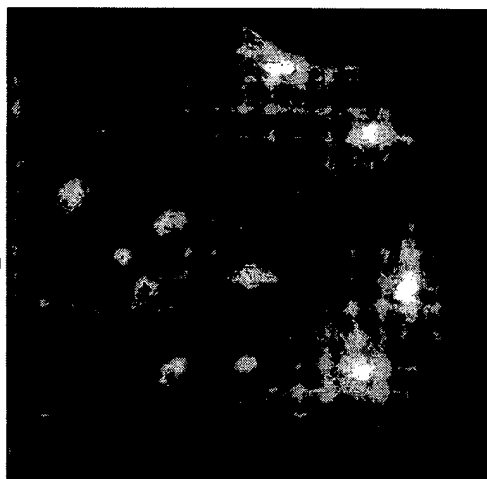


Figure 4

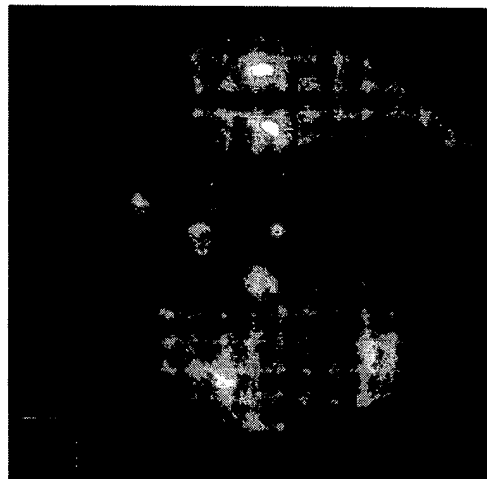


Figure 1

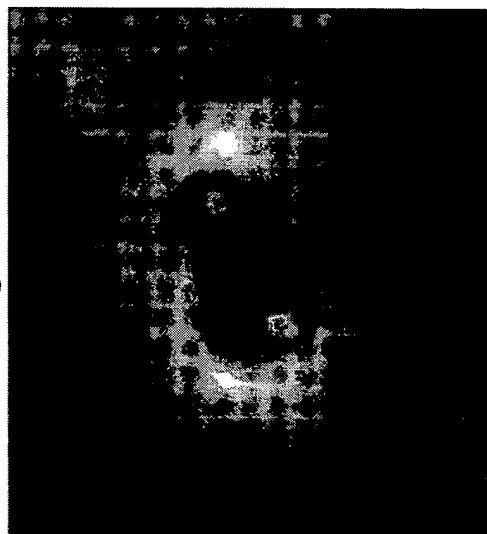
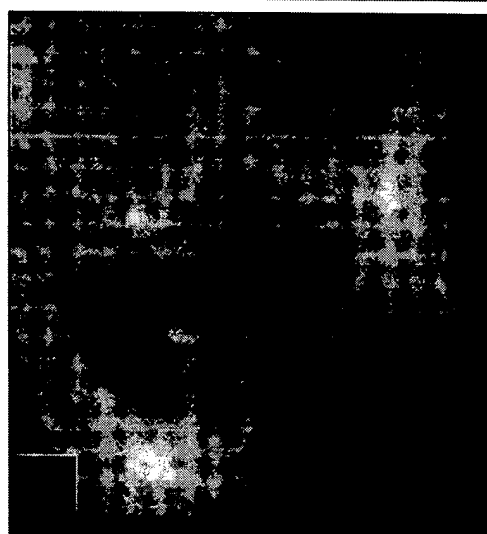


Figure 3



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FIG 5

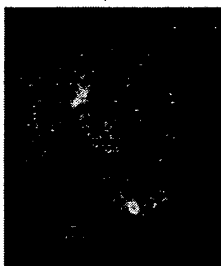


FIG 6

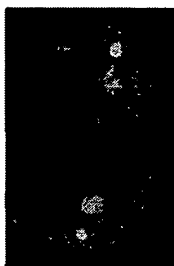


FIG 7

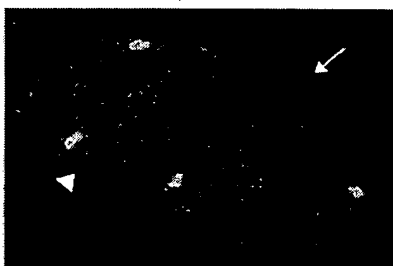


FIG 8

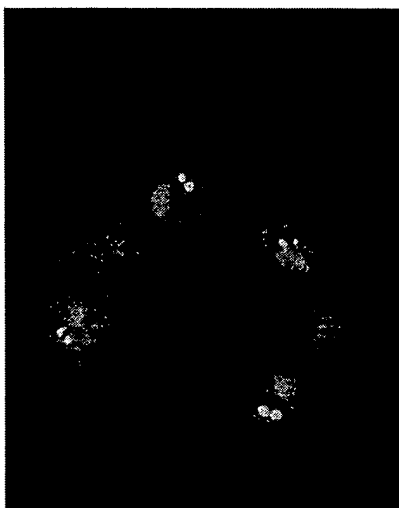


FIG 9

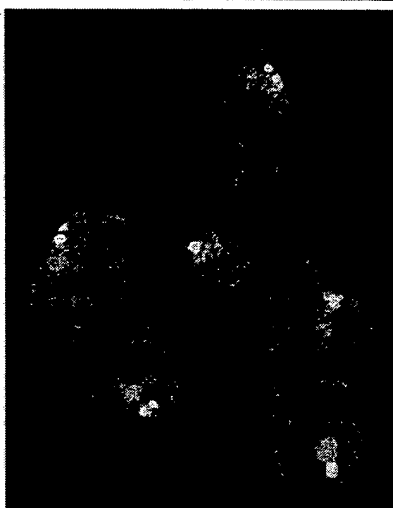


FIG 10

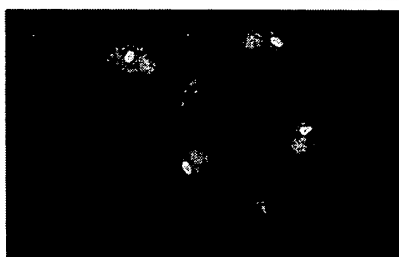


FIG 11



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Figure 13

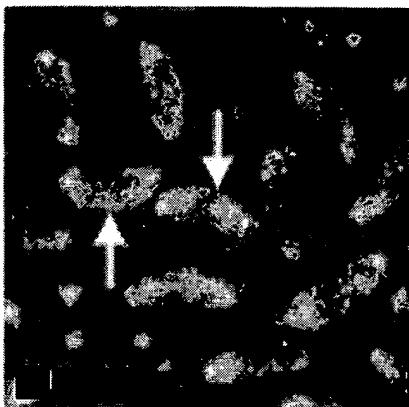


Figure 15

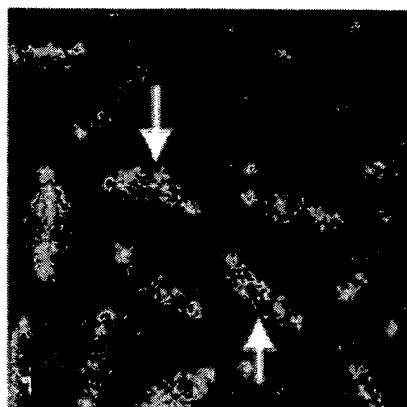


Figure 12

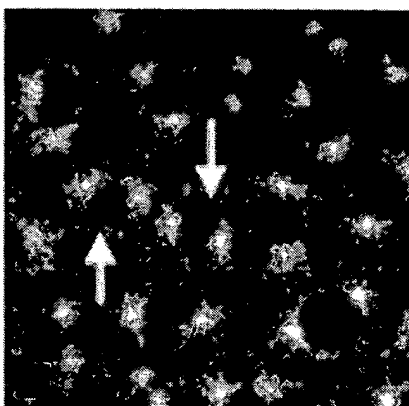
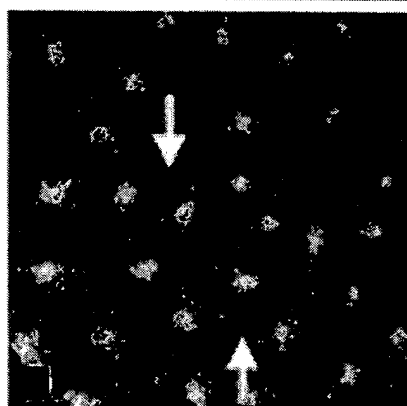


Figure 14



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Figure 16

SEQ ID NO:1 KIF18A cDNA
 GenBank Accession No. AL136819

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61 gaaaacacta aagaaaaagc agctggattt cataaagtgg ttcattgtgt ggataaacat
121 atcctagttt ttgatcccaa acaagaagaa gtcagttttt tccatggaaa gaaaactaca
181 aatcaaaatg ttataaagaa acaaaataag gatcttaa atttgtattga tgctgttttt
241 gatgaaacgt caactcagtc agaagttttt gaacacacta ctaagccaat tcttcgtagt
301 ttttgaatg gatataattg cacagtactt gcctatgggt ccaactgggc tgggaagacc
361 cacactatgc taggatcagc tgatgaacct ggagtgtatg atctaacaat gttacacctt
421 tacaaatgca tggatgagat taaagaagag aaaatatgta gtactgcagt ttcatactg
481 gaggtatata atgaacagat tcgtgatctc ttagtaaatt cagggccact tgctgtccgg
541 gaagataccc aaaaaggggt ggtcgttcac ggacttactt tacaccagcc caaatcctca
601 gaagaaattt tacatttatt ggataatgga acaaaaaaca ggacacaaca tcccactgat
661 atgaatgcca catcttctcg ttctcatgct gtttccaaa ttacttgcg acaacaagac
721 aaaacagcaa gtatcaatca aaatgtccgt attgccaaaga tgcactcat tgacctggca
781 ggatctgagc gagcaagtac ttccgggtct aagggggacc gattttaga aggcacaaat
841 attaatagat cacttttagc tcttgggaat gtcataatg ccttagcaga ttcaaagaga
901 aagaatcagc atatccctta cagaaatagt aagcttactc gcttgtaaa ggattctctt
961 ggaggaaact gtcaaatat aatgatagct gctgttagtc ctctctctgt attctacgat
1021 gacacatata acactcttaa gtatgctaac cgggcaaagg acattaaatc ttctttgaag
1081 agcaatgttc ttaatgcaa taatcatata actcaatag taaagatctg taatgagcag
1141 aaggcagaga ttttattgtt aaaagaaaaa ctaaaagcct atgaagaaca gaaagccttc
1201 actaatgaaa atgaccaagc aaagttaatg atttcaaacc ctgaggaaaa agaaatcgaa
1261 aggtttcaag aaatcctgaa ctgcttgttc cagaatcgag aagaaattag acaagaatat
1321 ctgaagtgg aaatgttact taaagaaaaa gaacttaa atctctacca acaacagtgc
1381 cataaacaaa tagaaatgat gtgttctgaa gacaaagtag aaaaggccac tggaaaacga
1441 gatcatagac ttgcaatgtt gaaaactcgt cgctcctacc tggagaaaag gagggaggag
1501 gaattgaagc aatttgatga gaactaat tggtccatc gtgtcgaaaa agaatggga
1561 ctcttaagtc aaaacggta tattccaaag gaactcaaga aagatcttca ttgtcacat
1621 ttgcacctcc agaacaaga ttgaaagca caaattagac atatgatgga tctagcttgt
1681 ctccaggaac agcaacacag gcagactgaa gcagtattga atgcttact tccaacccta
1741 agaaaacaat attgcacatt aaaagaagcc ggctgtcaa atgctgtctt tgaatctgac
1801 ttcaaagaga tcgaacattt gtagagagg aaaaagtgg tagtttgggc tgaccaaact
1861 gccgaacaac caaagcaaaa cgatctacca gggatttctg ttcttatgac ctttccacaa
1921 cttggaccag ttcagcctat tcttgttg gcctgtcaa atgctgtctt tgaatctgac
1981 attcctacag aaaaagaac tcggagaaaa ctaatgcat ctcccttgaa aggacagcat
2041 actctaaagt ctccaccatc tcaaagtgtg cagctcaatg attctcttag caaagaactt
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2161 acctaatga aacctatc atttactaca agtttcagg ctatcagctc aaacataaac
2221 agtgataatt gtctgaaat gttgtgtgaa gtagctatcc ctcataatag aagaaaagaa
2281 tgtggacagg aggacttga ctctacattt actatatgtg aagacatcaa gagctcgaag
2341 tgtaattac ccgaacaaga atcactacca aatgataaca aagacattt acaacggctt
2401 gatccttctt cattctcaac taagcattct atgctgtac caagcatggt gccatcctac
  
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2461 atggcaatga ctactgctgc caaaaggaaa cggaaattaa caagttctac atcaaacagt
2521 tcgttaactg cagacgtaaa ttctggattt gccaaacgtg ttcgacaaga taattcaagt
2581 gagaagcact tacaagaaaa caaaccaaca atggaacata aaagaaacat ctgtaaaata
2641 aatccaagca tggtagaaa atttggaaga aatatattcaa aaggaaatct aagataa

Figure 17

SEQ ID NO:2 Amino acid sequence of KIF18A

GenBank Accession No. AL136819

MSVTEEDLCHHMKVVVRVRPENTKEKAAGFHKVVHVVDKHILVFDPKQEEVSF
FHGKKTTNQNVIKKQNKDLKFVFDVFDSTQSEVFEHTTKPILRSFLNGYNCT
VLAYGATGAGKTHTMLGSADEPGVMYLTMLHLYKCMDEIKEEKICSTAVSYLE
VYNEQIRDLLVNSGPLAVREDTQKGVVHGLTLHQPKSSEEILHLLDNGNKNRT
QHPTDMNATSSRSHAVFQIYLRQQDKTASINQNVRIAKMSLIDLAGSERASTSGA
KGTRFVEGTNINRSLLALGNVINALADSKRKNQHYPYRNSKLTRLLKDSLGGNCQ
TIMIAAVSPSSVFYDDTYNTLKYANRAKDIKSSLKSNVLNVNNHITQYVKICNEQ
KAEILLKEKLKAYEEQKAFTNENDQAKLMISNPQEKEIERFQEILNCLFQNREEI
RQEYLKLEMLLKENELKSFYQQQCHKQIEMMCSEDKVEKATGKRDHRLAMLKT
RRSYLEKRREEELKQFDENTNWLHRVEKEMGLLSQNGHIPKELKKDLHCHHLHL
QNKDLKAQIRHMDLACLQEQHRQTEAVLNALLPTLRKQYCTLKEAGLSNAA
FESDFKEIEHLVERKKVVVWADQTAEQPKQNDLPGISVLMTFPQLGPVQPIPCS
SSGGTNLVKIPTEKRTRRKLMPSPKLGQHTLKSPPSQSVQLNDSLSELQPIVYTP
EDCRKAFQNPSTVTLMKPSSFTTSFQAISNINSDNCLKMLCEVAIPHNRKKECGQ
EDLDSTFTICEDIKSSKCKLPEQESLPNDNKDILQRLDPSSFSTKHSMVPVPSMVPSY
MAMTTAAKRKRKLTSSTSNSSLTADVNSGFAKRVQRQDNSSEKHLQENKPTMEH
KRNICKINPSMVRKFGRNISKGNLR

Figure 18

SEQ ID NO:3 Amino acid sequence of KLP67A
GenBank Accession No. NM_079268

MPSEQHTNIKVAVRVRPYNVRELEQKQRSIIKVMDRSALLFDPDEEDDEFFQGA
KQPYRDITKRMNKKLTMEFDRVFDIDNSNQDLFEECTAPLVDAVLNGYNCSVFV
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EHVMNLLTKSGPLKLREDNNGVVVSGLCCLTPIYSAEELLRLMLGNSHRTQHPT
DANAESSRSHAFQVHIRITERKTDTKRTVKLSMIDLAGSERAASTKGIGVRFKEG
ASINKSLLALGNCINKLADGLKHIPYRDSNLTRILKDSLGGNCRTLMVANVSMSS
LTYEDTYNTLKYASRAKKIRTTLKQNVLKSKMPTEFYVKKIDEVVAENERLKER
NKALEAKATQLERAGNSGFDPELKTWYSKIDAVYAAARQLQEHVLGMRKIK
NINYRQTLKKELEEFRLKMCVDQRCQEDFRRFANYMSTLTSQMEKYKEELPS
WLSKMEIAYQDLESLKREVNKSKAYQILIVYVKYKDLELQLTKQNFNNHVNAI
NQELVENLDLMRKSFRACEVLNQTYDRLEDGQKLTPEIEAVFERLLRKMRFAD
SEANTKMAEMNPLAVPVALRSSAQEEEEPTCSLTASAKKRQRQAAQSDDDLHLS
MEDFDSQDTESDSEELHRTFKRPRNLNETQVLGPCSSSSSSSTSSSSSARKALTAT
VTKPRTVQQRLVSDLISDQNVRRGGNEKIKKALLKSNHFTAQGLQRTLAAASLAK
ENVKYNANYVRKSPRALMAKALAGTSTLARKPLGSASKEPPLVKFNRAASFRLK
K

Figure 19

SEQ ID NO:4 cDNA of KLP67A
GenBank Accession No. NM_079268

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61 cgtgaattgg agcaaaaaca gcggagtatt atcaaggcca tggatcggtc ggcactgctg
121 ttcgatcccg acgaggagga cgtatgagtc ttcttcagg gcgccaagca accgtaccgc
181 gacatcacca agcggatgaa caaaaagttg accatggaat tcgacagggt attcgatata
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301 aatggataca actgctcggg atttgtatat ggagccactg gcgccggaaa aacattcaca
361 atgtgggcca gcgaggctca tccgggtctg acctatctta ccatgcaaga tctcttcgat
421 aagatccaag cgcagagcga cgtgcgcaag ttcgatgtgg gggtatccta tctagagggtg
481 tacaacgaac atgtgatgaa tctgctaact aaatcgggcc ctttaaaact tcgcgaggac
541 aacaatggcg tgggtgtcag tggctttgt ctacgcccc tctacagtgc cgaggagctg
601 ctaagaatgc tgatgctggg caactctcat cgcactcagc accccacaga tgccaatgca
661 gagagtcca ggacacatgc catcttcag gtgcacatta ggtacacgga gcgcaagacc
721 gacacaaaa gaacgggtcaa actatccatg atcgatctgg cgggcagtga gagggcggcc
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1141 cgcaacaagg cgctggaggc caaggccact cagttggagc gcgccggcaa tagtggattc
1201 gatccgctgg agcttaagac gtgtacagc aagatagacg ctgtatatgc ggccgcccgg
1261 cagcttcagg agcacgtcct tggatgcgt agcaagatca agaactcaa ctaccggcg
1321 acactgaaaa agaactgga ggagttcagg aagctgatgt gtgtcgacca gcgagtgtgc
1381 caggaggact tccgtcgctt tgcgaactac atgagcacac tgaccagcca gatggagaag
1441 tacaaggagg agttgccag ctggctgagt aaaatggaga ttgctacca ggatctagaa
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1561 tacaaggatc tcgagctgca gctgaccaag cagaatatct ttaacaatca cgtgaacgca
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1681 gaagtgtca accagacgta cgtcgccctc gaggatggtc aaaagctgac gccggaaatt
1741 gagcggtct tcgaaagggt gctgcgaaag atgcggttcg ccgattccga ggccaatacc
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2041 ctgggtccct gcagcagtag tttagcagc agtacttcta gcagcagtag cgcaagggaag
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2221 aatcacttta cggcgcaagg acttcagaga acgttggcgg ctgcttctct ggccaaggaa
2281 aacgtaaaat acaacgcca ctatgtgcgc aagagtccac gagcgctaag ggccaaagcc
2341 cttgcaggca cctcgacgct tgcgagaaaa ccgctgggat cggccagtaa ggagccgcct
2401 ttggtcaaat tcaatcgtgc tcttcgttc cgctgaaga agtag
```

Figure 20

KLP61F dsRNA (SEQ ID NO:13)

gacgggcaca gggaagaccc acaccatggt gggcaacgag actgccgaac
tgaaatcctc ctgggaagat gactctgaca ttggcatcat accgcgcgct ctgagtcacc
ttttgatga gctgcgcatg atggaggtgg agtacactat gcgcatttcc tacttggaac
tgtacaatga ggagctgtgc gatctactgt ccaccgatga caccaccaag atacgcattt
tcgatgacag caccaagaag ggatcgggtga ttatccaggg cctggaggag ataccagtgc
acagcaagga tgatgtgtac aagctgctgg agaagggaaa ggagcgtcgc aaaacagcca
ctacgtgat gaatgcacag tcctcacgct cccacactgt atttctata gttgtgcaca
tcaggagaaa tggcatcgaa ggagaggaca tgctgaaaat cggtaaactg aatctggtgg
atctggcggg cagtgaaaat gttccaagg ctgggaatga aaaggga

Figure 21

KLP67A dsRNA (SEQ ID NO:14)

gtacggc cgtataatgt ccgtgaattg gagcaaaaac agcggagtat
tatcaaggtc atggatcgtt cggcactgct gttcgatccc gacgaggagg acgatgagtt
cttctttcag ggcgccaagc aaccgtaccg cgacatcacc aagcggatga acaaaaagtt
gaccatggaa ttcgacaggg tattcgatat agacaattcc aaccaggatc tgttcgagga
gtgcacggcg ccgctggtcg acgcggtgtt aaatggatac aactgctcgg tatttgata
tggagccact ggcgccggaa aaacattcac aatgctgggc agcagggtc atccgggtct
gacctatctt accatgcaag atctcttcga taagatcaa gcgcagagcg acgtgcgcaa
gttcgatgtg ggggtatcct atctagaggt gtacaacgaa catgtgatga atctgctaac
taaatcgggc cctttaaacc ttcgcgagga caacaatggc gtggtggtca gtgg